

**AMENDMENTS TO THE CLAIMS**

Claim 1 (currently amended): A method for the detection of *Streptococcus sobrinus* in a test fluid suspected of containing *Streptococcus sobrinus* and *Streptococcus mutans*, said method comprising the steps of

(A) providing an anti-*S. sobrinus* antibody whose ~~S/M~~ *Streptococcus sobrinus* to *Streptococcus mutans* (S/M) binding selectivity is not less than 100 wherein S/M binding selectivity is defined as a ratio of the quantity of *Streptococcus sobrinus* to that of *Streptococcus mutans* when the antibody has reacted with *Streptococcus sobrinus* and with *Streptococcus mutans* to give an identical reaction value;

(B) bringing the antibody into contact with the test fluid to form an immune complex; and

(C) assaying the immune complex to detect *Streptococcus sobrinus* by using immunoagglutination techniques, optical immunoassay techniques, labeled immunoassay techniques or a combination thereof.

Claim 2 (previously amended): A method as claimed in claim 1 wherein the antibody is a polyclonal antibody.

Claim 3 (previously amended): A method as claimed in claim 1 wherein the binding selectivity of the antibody for *Streptococcus sobrinus* is determined with respect to the serotype d and g strains of the bacterial species, and the ratio of the binding selectivity of the antibody for the serotype d strain to that for the serotype g strain is from 1/2 to 2.

Claim 4 (cancelled)

Claim 5 (previously presented): A method as claimed in claim 1 wherein the immune complex is assayed by an immunochromatographic technique.

Claim 6 (currently amended): A diagnostic method for judging the degree of risk of dental caries in a human subject, said method comprising the steps of

- (a) preparing a test fluid using saliva and/or dental plaque collected from the subject;
- (b) providing an anti-*S. sobrinus* antibody whose ~~S/M~~ *Streptococcus sobrinus* to *Streptococcus mutans* (S/M) binding selectivity is not less than 100 wherein S/M binding selectivity is defined as a ratio of the quantity of *Streptococcus sobrinus* to that of *Streptococcus mutans* when the antibody has reacted with *Streptococcus sobrinus* and with *Streptococcus mutans* to give an identical reaction value;
- (c) bringing the test fluid prepared in step (a) into contact with the antibody provided in step (b) to form an immune complex; and
- (d) assaying the immune complex to detect *Streptococcus sobrinus* by using immunoagglutination techniques, optical immunoassay techniques, labeled immunoassay techniques or a combination thereof, and evaluating the detected amount of *Streptococcus sobrinus* as an index to a risk of dental caries.

Claim 7 (previously amended): A diagnostic method as claimed in claim 6 wherein the antibody is a polyclonal antibody.

Claim 8 (previously amended): A diagnostic method as claimed in claim 6 wherein the binding selectivity of the antibody for *Streptococcus sobrinus* is determined with respect to the serotype d and g strains of the bacterial species, and the ratio of the binding selectivity of the antibody for the serotype d strain to that for the serotype g strain is from ½ to 2.

Claim 9 (cancelled)

Claim 10 (previously amended): A diagnostic method as claimed in claim 6 wherein step (c) is carried out in the coexistence of the anti-*S. sobrinus* antibody with an anti-*S. mutans* antibody binding specifically with *Streptococcus mutans*, or in addition to step (c), another step is

carried out by bringing the test fluid into contact with the anti-*S. mutans* antibody to form an immune complex; the resulting immune complex derived from the anti-*S. mutans* antibody is also assayed; and the amount of this complex is also evaluated as an index to a risk of dental caries.

Claim 11 (previously amended): A diagnostic method as claimed in claim 10 wherein an antibody binding specifically with *Streptococcus mutans* and *Streptococcus sobrinus* is used in place of the anti-*S. mutans* antibody.

Claim 12 (previously presented): A diagnostic method as claimed in claim 6 wherein the one or more immune complexes are assayed by an immunochromatographic technique.

Claim 13 (cancelled)

Claim 14 (currently amended): An immunoassay kit or a diagnostic kit for judging the degree of risk of dental caries in human subjects, said kit including an antibody whose S/M *Streptococcus sobrinus* to *Streptococcus mutans* (S/M) binding selectivity is not less than 100 wherein S/M binding selectivity is defined as a ratio of the quantity of *Streptococcus sobrinus* to that of *Streptococcus mutans* when the antibody has reacted with *Streptococcus sobrinus* and with *Streptococcus mutans* to give an identical reaction value; and if necessary, an antibody binding specifically with *Streptococcus mutans*, or an antibody binding specifically with *Streptococcus mutans* and *Streptococcus sobrinus*.

Claim 15 (currently amended): An immunochromatographic strip for detecting *Streptococcus sobrinus* in a test fluid which comprises:

- (i) a labeled antibody, having binding ability for *Streptococcus sobrinus*, to which a labeling substance is bound,
- (ii) a detection antibody having binding ability for *Streptococcus sobrinus*,
- (iii) a sample pad for absorbing and holding the test fluid temporarily therein,

(iv) a conjugate pad for holding the labeled antibody of which the labeled antibody and the test fluid from the sample pad are able to flow out, and

(v) a development membrane, having the detection antibody immobilized thereto, through which the labeled antibody and test fluid from the conjugate pad are able to flow to contact the detection antibody, wherein:

(a) the sample pad, the conjugate pad and the development membrane are joined together in this order,

(b) the detection of the *Streptococcus sobrinus* is carried out by detecting the labeling substance in an immune complex at the development membrane, wherein said immune complex has been formed by contacting the labeled antibody and the test fluid, and

(c) said detection antibody comprises an anti-*S. sobrinus* antibody whose S/M *Streptococcus sobrinus* to *Streptococcus mutans* (S/M) binding selectivity is not less than 100.

Claim 16 (previously amended): An immunochromatographic strip as claimed in claim 15 wherein said detection antibody comprises a combination of the anti-*S. sobrinus* antibody and an antibody binding to *Streptococcus mutans* specifically, or a combination of the anti-*S. sobrinus* antibody and an antibody binding to both *Streptococcus mutans* and *Streptococcus sobrinus*.

Claim 17 (currently amended): An isolated or purified polyclonal antibody whose S/M *Streptococcus sobrinus* to *Streptococcus mutans* (S/M) binding selectivity is not less than 100 wherein S/M binding selectivity is defined as a ratio of the quantity of *Streptococcus sobrinus* to that of *Streptococcus mutans* when the antibody has reacted with *Streptococcus sobrinus* and with *Streptococcus mutans* to give an identical reaction value.

Claim 18 (previously amended): A polyclonal antibody as claimed in claim 17 wherein the binding selectivity of the antibody for *Streptococcus sobrinus* is determined with respect to the serotype d and g strains of the bacterial species, and the ratio of the binding selectivity of the antibody for the serotype d strain to that for the serotype g strain is from 1/2 to 2.